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ABSTRACT

Three papers describe the three stages of developing the National Teacher Examination (NTE) School Psychologist Specialty Area Test. The first stage is described in the paper entitled "Knowledge Areas Important to School Psychology." A survey of the membership of the National Association of School Psychologists helped determine knowledge areas and job activities important to the professional functions of an entry-level school psychologist. Expert committee judgments were then used to link these knowledge areas to job domains. The second stage, described in the paper entitled "Specifying the Content Domain of the NTE School Psychologist Specialty Area Test," reviews how the findings of the first stage were used by the Committee of Examiners to establish content specifications and the representation of component knowledge areas for the test. The findings were also used to establish a job context for each test question. Finally, the "Follow Up: Specifying the Content and Context of NTE School Psychologist Items for Item Writers" documents how the directions of the Committee of Examiners were transmitted to item writers. The three papers, taken together, provide a step-by-step process of item development based on expert judgment. Twelve tables support the discussions. An appendix for each paper presents supplemental information, including questionnaires and descriptive statistics. (Contains 11 references.) (Author/SLD)

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RESEARCH REPORT

The Three Stage Development of the NTE School Psychologist Specialty Area Test from A Job Analysis Perspective

Gerald E. DeMauro

Educational Testing Service
Princeton, New Jersey
November 1990

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Abstract

The utilization of survey data and expert judgment in test development is described in the three stages of developing the NTE School Psychologist Specialty Area Test. The first stage is described in the paper entitled "Knowledge Areas Important to School Psychology." A survey of the membership of the National Association of School Psychologists helped determine knowledge areas and job activities important to the professional functions of an entry-level school psychologist. Expert committee judgments were then used to link these knowledge areas to job domains. The second stage, described in the paper entitled "Specifying the Content Domain of the NTE School Psychologist Specialty Area Test" reviews how the findings of the first stage were used by the Committee of Examiners to establish content specifications and the representation of component knowledge areas for the test. The findings were also used to establish a job context for each test question. Finally, the "Follow Up: Specifying the Content and Context of NTE School Psychologist Items for Item Writers" documents how the directions of the Committee of Examiners were transmitted to item writers. The three papers, taken together, provide a step by step process of item development based on expert judgment.

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Gerald DeMauro

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Stage 1:

Knowledge Areas Important to the Job of a School Psychologist

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EXECUTIVE SUMMARY

This report is concerned with the refinement of a blueprint or set of test specifications for the development of the NTE School Psychologist Specialty Area Test. The process draws on earlier work that includes a job analysis of licensed psychologists (Rosenfeld, Shimberg, and Thornton, 1983) and the development of the first form of this test.

A survey of the membership of the National Association of School Psychologists (NASP) is used to assess the importance of seven job dimensions to the functions of an entry-level, minimally competent practitioner. In addition, respondents also asked to rate the importance of 24 knowledge areas to the performance of these functions.

Judgments were also gathered from a committee of NASP representatives who also met to help set standards for certification on the first form of the test and to judge the relevance of each test question to the job of a minimally competent entry-level practitioner. As part of the current study, this committee: 1) rated the importance of each of the 24 knowledge areas to the performance of each of the seven job dimensions, and 2) estimated the percentage of test questions that should sample each knowledge area. These data should provide the Committee of Examiners for the NTE School Psychologist Specialty Area Test, scheduled to meet in January 1989, with a blueprint of which topics to cover, the extent of the coverage, and the context in which each important knowledge area is used by entry-level practitioners.

GLOSSARY OF TERMS

1. Committee of Examiners - Refers to two committees. Each is composed of content area experts who develop test specifications and who write test questions. The first committee (October 1986) developed the first form of the NTE School Psychologist Specialty Area Test, and the second committee met in January 1989 and developed test specifications for new forms of the test.

2. Content Categories - Six categories of content subjects, which are each composed of a varying number of more specific knowledge areas.

3. Knowledge Areas - Twenty-four specific content subjects that are used by school psychologists in the performance of their job, and are grouped into six content categories on a logical basis.

4. Job Dimensions - Seven broad functions of school psychologists, which are each composed of a varying number of more specific job functions (by the original Committee of Examiners).

5. Professional Functions - Ninety-eight specific activities that are performed by school psychologists, which are logically grouped into seven job domains.

6. Validation Committee (Expert Panel) - A committee of 19 experts convened to study the content validity of the NTE School Psychologist Specialty Area Test. They also judged the importance of each knowledge area for the performance of each job estimated the representation of each knowledge area on the test in terms of percentage of test questions.

INTRODUCTION

Overview of Study

This report presents the results of a study of the importance of various knowledge areas to the performance of the job of a minimally-knowledgeable entry-level school psychologist. Specifically, the analyses are one part of an ongoing study that also includes the identification of the professional functions of school psychologists, the delineation of knowledge areas that are important to these functions, the formation of test content specifications, and the redesign of an instrument to be used for certifying school psychologists by the National Association of School Psychologists (NASP).

The test chosen by NASP for this purpose is the NTE School Psychologist Specialty Area Test, since its current version appears to cover many of the knowledge areas deemed important for the practice of school psychology. The Committee of Examiners for this test met in January 1989 to design the content specifications of two new forms of the instrument. Committee members used the results of these analyses, as well as their own experience and expertise, empirical data from past administrations of the test, and the results of recent validation studies of the test to help them in the process of revising and/or redefining, as needed, the test specifications for the current version of the test.

This study relied heavily on a survey of practicing school psychologists (n=647), that gathered their judgments about what school psychologists do and what knowledge they need to have to do their jobs. Expert panel (n=19) judgments of the importance of 24 knowledge areas to the performance of job functions in seven broad job dimensions by entry-level practitioners were also obtained. Such procedures represent a systematic approach to integrate the best judgments of practicing professionals in the test development process.

Content Validity

In essence, results of the current study can be used to provide information that buttresses the content validity of the test, by facilitating the congruence between the knowledge areas sampled by the test questions and the domain of interest in this case, the knowledge required of entry-level school psychologists. The Standards for Educational and Psychological Testing (American Educational Research Association, American Psychological Association, and the National Council on Measurement in Education, 1985, page 10) describe how expert judgments may be used to construct a representative or critical sample of the job domain, and to rate the importance of job activities. This study and similar studies (Rosenfeld, Shimberg, and Thornton, 1983; Rosenfeld, Thornton, and Skurnik, 1986) use professional judgments to define the job domain and to delineate which knowledge areas are most important to each job dimension.

Table 1

Job Dimensions and Numbers
of Component Professional Functions
for the Job of a School Psychologist

Job Dimension	Number of Professional Functions
I. Assessment	17
II. Consultation	49
III. Direct Interventions	9
IV. Inservice/Educational/ Function/ Staff Development	9
V. Research/Program Evaluation	4
VI. Continuing Education/Professional Growth	5
VII. Professional Standards	5
Total	98

In this way, the knowledge areas held to be most important by experts in school psychology form the content blueprint of the test. The results of this study lead directly to detailed specification of the test blueprint by providing the relative representation of each knowledge area on the test in terms of percentage of test questions. Finally, the study provides an appropriate context for the test questions by summarizing expert judgments about the specific types of situations or settings in which each knowledge area should be used by entry-level school psychologists.

Study Tasks

The study had four major tasks:

1. Developing a list of professional functions and job dimensions that school psychologists rate as important to the job of the entry-level practitioner;

2. Developing a list of knowledge areas that school psychologists rate as important to the performance of the job of an entry-level practitioner;

3. How the linkage between knowledge areas and job dimensions;

4. Estimating the percentage of test questions that should be devoted to each knowledge area.

Professional Functions

To accomplish these tasks, a preliminary list of the professional functions of school psychologists was compiled from an earlier job analysis of licensed psychologists (Rosenfeld, Shimberg, and Thornton, 1983). The sample for this earlier study included 199 American and 61 Canadian school psychologists drawn from the membership of the American Psychological Association Division 16 (school psychology) and Canadian regional professional organizations.

Editorial modifications (See Appendix A, First Stage) were made to the original list, before it was submitted to NASP for any additions or deletions that best reflect the job. This revised list (Appendix A, First Stage) contained 98 specific "professional skills" that represent activities of school psychologists, logically grouped into seven superordinate job dimensions that conform, broadly, to models found in the literature (Brown, 1982; Bardon, 1982; Myers and Rosen, 1986; Richman, 1985). These dimensions are shown in Table 1 with the number of component professional functions that comprise each. Survey respondents were also given the opportunity to add or delete both specific functions and broad job dimensions.

Table 2

Six Superordinate Content
Categories and the Twenty-Four
Component Knowledge Areas

Content Category	Knowledge Areas
I. Assessment	1. Interviewing 2. Observation 3. File Review 4. Norm-referenced Tests 5. Criterion-referenced Tests 6. Curriculum-based Assessment
II. Intervention	1. Behavioral/Social Emotional 2. Instructional 3. Inservice Staff Development 4. Referral Out 5. Prevention/Prereferral
III. Evaluation	1. Interpretation/Evaluation of Research 2. Program Evaluation 3. Technical Issues/Measurement
IV. Professional Practice	1. Ethics 2. Professional Standards of Practice 3. Legal Issues
V. Psychological Foundations	1. Normal/Abnormal Development 2. Learning Theory 3. Biological Bases of Behavior 4. Sociocultural/Familial Influences
VI. Educational Foundations	1. Organizations and Operation of Schools 2. Instruction/Remedial Techniques 3. Characteristics of Exceptional Learners

Knowledge Areas

Like the professional functions, knowledge areas are also logically grouped into six superordinate content categories. These content categories, and the 24 component knowledge areas are shown in Table 2. The relative representation of each knowledge area was determined by the 1986 Committee of Examiners the original form of the NTE School Psychologists Specialty Area Test. The members of this Committee represented a consortium of 10 state departments of education that were seeking a test as part of their licensing requirement for school psychologists.[1]

The test questions and content specifications that comprise the new test forms sample the areas judged to be important. As part of the current study, survey respondents were also given the opportunity to add or delete both content categories and knowledge areas from this list. Therefore, the knowledge areas that were the basis for test development work for the first edition of the test must be considered as a preliminary, working list that has since been subject to professional modification by survey respondents (described later).

Linking Knowledge Areas to Job Dimensions

The purpose of linking was to provide additional evidence of the relationship of the knowledge areas assessed by the test to the job of a school psychologist. It is important to determine how each of the important knowledge areas is used in the practice of school psychology. Such information provides a professional situation or setting for test questions that most closely resembles the context in which the knowledge area is used in the practice of school psychology. For example, one job dimension is Continuing Education/Professional Growth, and another is Assessment. Reasonably, knowledge of Norm-referenced Tests, one of the 24 knowledge areas, is probably more important to school psychologists in their professional Assessment functions than in their Continuing Education/Professional Growth functions. If this is true, then applicants should be able to apply this knowledge to questions concerned with Assessment, but not necessarily to questions concerned with Continuing Education/Professional Growth.

Estimating Percentages of Test Questions

Professional judgment was used to determine the relative representation of each knowledge area on the test given the job of an entry-level school psychologist. Ideally, this representation should correspond to the context in which the knowledge is used in the job of an entry-level school psychologist. In this way, examinees who are less knowledgeable in areas of relatively little usage are not unduly disadvantaged, and those that are more knowledgeable in these areas are not unduly advantaged by the composition of the test.

[1] Adoption or modification of these knowledge areas for the new forms of the instrument will be the responsibility of the Committee of Examiners that meets in January 1989.

Table 3

Percentage of Test Questions that Address Each Content Category of the NTE School Psychologist Test, and Mean Validation Committee (n=19) Estimates of Percentage of Questions that Should Address Each Content Category

Content Category	Percentage of Questions: Current[a]	Committee Estimates
Assessment	25%	22.5%
Intervention	25	27.9
Evaluation	10	11.1
Professional Practice	20	15.6
Psychological Foundations	10	12.4
Educational Foundations	10	10.5
Total	100	100

[a] First edition of the School Psychologist

METHODS

Sources of Professional Judgment

The study draws on five major sources of professional judgment:[2]

1. A job analysis of licensed psychologists (Rosenfeld, et.al. 1983) to help form the initial list of professional functions;

2. The expertise of individual members of the National Association of of School Psychologists (NASP) who reviewed the survey instrument;

3. The 1986 Committee of Examiners of the first form of the NTE School Psychologist Specialty Area Test to compose the initial list of knowledge areas;

4. The professional judgments of a random sample of 647 NASP members to rate the importance of each knowledge area and each job dimension to the job of a minimally inconsistent school psychologist (results related to the survey outcomes will be labelled "S" in the text);

5. The professional judgments (labelled "V" in the text) of 19 members of a test validation committee panel representing the membership of NASP[3] to provide judgments concerning:
   - o the linkage of knowledge areas to job dimensions and
   - o the percentages of test questions that should sample each knowledge area.

Data generated by the first and third sources were reviewed and used in the study, as described earlier. The judgments of NASP members is ongoing. The remainder of the methods section describes the survey of NASP members and the use made of the judgments of the test Validation Committee.

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[2] Of course, the professional judgments of the five members of the January 1989 Committee of Examiners will make use of the outcomes of this study to produce test specifications for two new forms of the NTE School Psychologist Specialty Area Test.

[3] As part of a separate study, this Committee judged the job relevance of each test question and provided knowledge estimation data pertinent to establishing passing standards on the test.

Survey (S)

Instrument. The survey questionnaire asked respondents to rate the importance of seven job dimensions and 24 knowledge areas to the performance of the job of a minimally qualified newly-credentialed school psychologist. Respondents rated importance on a scale of 0 to 4, in which 0 indicated "of no importance," 1 indicated "of little importance," 2 indicated "moderately important," 3 indicated "very important," and 4 indicated "extremely important." Respondents were also given the opportunity to add or delete from the list of seven job dimensions, six content categories, 24 knowledge areas, or 98 professional functions (See Appendix A, Stage 1, for professional functions).

Respondents were also asked to indicate whether or not each of the six content categories was necessary for the competent performance by a minimally qualified, newly-credentialed school psychologist in each of the seven job dimensions. Finally, respondents provided considerable background information that may be helpful either to future secondary analyses, or in interpreting the results of the survey (See Appendix B Stage 1).

Sample. Questionnaires were sent to a sample of 1000 licensed practicing school psychologists drawn at random by NASP from its national membership list. Completed questionnaires were returned by 647 respondents, and the responses were keyed onto computer magnetic tape for analysis.

Analysis of survey. Analysis utilized the SAS package (Helwig and Council, 1979). Means, correlations frequency distributions and associated chi-square statistics were calculated. The characteristics of the respondents are summarized in Appendix B, Stage 1. (See Appendix C, Stage 1, for the survey form).

Validation Committee (V)

In November 1988, 19 members of NASP met at the Association's national headquarters in Washington, D.C. to provide judgmental ratings based on questions in the NTE School Psychologist Specialty Area Test. The group was chosen by NASP to be representative of its membership with regard to gender and job responsibilities. Ten members were female and nine were male. Ten members identified themselves as trainers of school psychologists working at colleges or universities, six as practitioners in elementary or secondary schools, and three in other positions. In addition, committee members were also asked to list knowledge areas that are relevant to a beginning certifiable school psychologist that were not included on the test. This information was presented to the 1989 Committee of Examiners at its January meeting.

As part of the current study, the Validation Committee was given three tasks (See Appendix D, Stage 1, for the forms used for these):

1. Rate from 0 (not important) to 4 (extremely important) how important each of the 24 knowledge areas (within the six content categories) are to the performance of each job dimension;

   Committee members were given the opportunity to familiarize themselves with the 98 professional functions of school psychologists, See Appendix A, Stage 1).

2. Estimate the percentage of test questions that should be allocated to each of the six content categories;

   (Committee members were first given the list of the six content categories that comprise the current form of the NTE School Psychologist Specialty Area Test as well as the percentage of test questions that are devoted to each of these on the current form of the test).

3. Estimate the percentage of test questions that should be allocated to each of the 24 component knowledge areas.

   Note: Committee members were asked to read and become familiar with the knowledge areas within each of the six content categories and to estimate the percentage of test questions that should be devoted to each of the six content categories.

The average percentage ratings that were given to each content category was computed and reported on site before the third task began. These averages were discussed. Validation Committee members then estimated the percent of test items that should be devoted to each of the component knowledge areas with the restriction that the sum of the percentages of the knowledge areas within each content category should be equal to the total content category mean percentage. This procedure was followed individually by each Committee member for the component knowledge areas of each content category. Table 3 shows both the allocation of questions to content categories as it existed before the January 1989 Committee of Examiners meeting and the validation Committee's average estimates of allocations. Note that these allocations are not significantly different.

RESULTS

Job Dimensions

Importance ratings (S). Table 4 shows that Assessment (mean = 3.75, on a scale of 0 to 4) and Professional Standards (mean = 3.66) were held to be the most important job dimensions by survey respondents. None of the dimensions rated as being "of no importance" by any of the respondents, and the average rating of each dimension was in a range described as at least "moderately important." The job dimension that received the lowest ratings on this scale was Research/Program Evaluation (mean = 1.81). Even this dimension, however, was rated as at least "moderately important" to the job of an entry level school psychologist by 63.7 percent of the respondents (χ^2 = 47.26, df=1 $p<.001$, significantly greater than a 50 percent criterion).

Proposed modifications (S). When survey respondents were invited to add or delete job dimensions, the responses were numerous and varied. In particular, public relations (n=2), individual counseling (n=3), group counseling (n=4), and regulations concerning assessment and program eligibility (n=5) were added to the list of job dimensions by respondents. Other suggestions to delete or add specific professional functions were also made. These included preschool holding family meetings and direct intervention, under Intervention (n=4) each; and preschool assessment and integration of other assessment data (e.g. speech) under Assessment (n=2 each). These modifications were categorized, and provided to the January 1989 Committee of Examiners for their consideration in designing test specifications.

Knowledge Areas

Importance (S). Table 5 shows that each of the (within the six content categories) was rated at least "moderately important" by over 85 percent of the survey respondents. Professional Ethics was the knowledge area that was judged to be the most important. It attained a mean rating of 3.71 and was judged to be "extremely" important by nearly three-quarters of the respondents. Inservice received the lowest ratings (mean = 2.21), and was judged to be "extremely important" by only 4.1 percent of the respondents.

Agreement (S). The correlation of the mean importance ratings on the scale of 0 to 4 of the 24 Knowledge areas made by female respondents to those by male respondents was .99. Women (n=389) and men (n=247) agreed substantially, and no knowledge area attained a mean rating of less than 2.00 ("moderately important") for either group. For both males (mean = 3.63) and females (mean = 3.75), Ethics was rated as the most important knowledge area.

Table 4

Questionnaire Respondents'
Importance Ratings of Job Dimensions
To the Job of an Entry-Level Psychologist
(0 = of no importance, 4 = extremely important).

Job Dimension	Importance at Least: Moderately	Very	Extremely	Mean	SD	Importance Designation[a]
1. Assessment	100.0%	98.4%	76.2%	3.75	0.47	Extremely
2. Consultation	99.4	92.1	50.5	3.42	0.65	Very
3. Intervention	96.7	77.3	32.2	3.06	0.80	Very
4. Inservice	80.4	27.2	3.7	2.10	0.77	Moderately
5. Research	63.7	17.6	3.0	1.81	0.84	Moderately
6. Continuing Education	98.6	78.5	31.2	3.08	0.75	Very
7. Professional Standards	99.5	96.5	70.2	3.66	0.56	Extremely

[a] The importance designation represents the description of the original rating scale (e.g. 0= "of no importance) associated with the mean rating rounded to the nearest integer.

Table 5

Importance Ratings of Each Knowledge Area
to the Job of an Entry-Level School Psychologist

24 Knowledge Areas within 6 Content Categories	Importance at Least Moderately	Very	Extremely	Mean	SD	Importance Designation[a]
1. Assessment				3.16	0.49	Very
Interviewing	100%	93.5	45.7%	3.39	0.61	Very
Observation	98.8	93.2	50.0	3.43	0.62	Very
File Review	98.9	73.2	27.4	3.00	0.76	Very
Norm-referenced	99.4	89.7	57.2	3.46	0.69	Very
Criterion-referenced	97.0	71.0	30.0	2.98	0.83	Very
Curriculum-based	92.1	56.7	19.3	2.68	0.88	Very
2. Intervention				2.91	0.50	Very
Beh./Soc./Emot.	99.7	95.7	56.6	3.52	0.59	Extremely
Instructional	95.1	71.6	25.9	2.93	0.83	Very
Inservice	85.1	32.2	14.1	2.21	0.74	Moderately
Referral Out	96.7	58.6	16.1	2.71	0.79	Very
Preven./Preref.	99.2	81.6	37.4	3.18	0.74	Very
3. Evaluation				2.65	0.70	Very
Interpret	93.5	61.6	25.0	2.80	0.89	Very
Program	88.6	44.5	9.0	2.42	0.82	Moderately
Technical	93.7	59.8	20.6	2.74	0.86	Very
. Professional Practice				3.59	0.51	Extremely
Ethics	100.0	96.2	74.6	3.71	0.53	Extremely
Standards	99.8	95.2	69.1	3.64	0.58	Extremely
Legal	100.0	88.5	54.7	3.43	0.69	Very
5. Psychological Foundations				3.32	0.52	Very
Normal/Abnormal	99.8	95.3	58.5	3.53	0.59	Extremely
Learning Theory	99.8	90.3	46.0	3.36	0.66	Very
Biological Bases	97.9	75.8	26.6	3.00	0.76	Very
Social/Familial	99.8	94.1	45.4	3.34	0.60	Very

Table 5 (continued)

Importance Ratings of Each Knowledge Area
to the Job of an Entry-Level School Psychologist

24 Knowledge Areas within 6 Content Categories	Importance at Least Moderately	Very	Extremely	Mean	SD	Importance Designation[a]
6. Educational Foundations				3.03	0.56	Very
School Org. & Operations	94.5	57.0	16.9	2.68	0.82	Very
Remediation	98.9	77.4	28.6	3.05	0.74	Very
Exceptional Learners	99.5	91.2	46.3	3.37	0.66	Very

[a] The importance designation represents the description of the original rating scale (e.g., 0 is "of no importance") associated with the mean rating rounded to the nearest integer.

In that scale, 0= of no importance
1= of little importance
2= Moderately important
3= Very important
4= Extremely important

Six hundred of the 647 respondents had identified themselves as "White." All other response categories, including no response, consisted of fewer than 20 people. A comparison was made between White and all other cases grouped together. For both groups, all knowledge areas were judged to be at least "moderately important." Agreement between the mean ratings made by the two groups was high (r =.93). For both the White (mean = 3.69) and non-White respondents (mean = 3.78), Ethics was again rated as the most important knowledge area.

Proposed modifications (S). Several knowledge areas, proposed as additions, seem to be related to current content categories or are more specific applications of current knowledge areas. These were presented to the 1989 Committee of Examiners who determined whether they actually constitute new content categories or extensions of existing content. In particular, the following were suggested as additions:

1) Knowledge of counseling (n=24); communication and report writing (n=16);
2) Group, individual, and family counseling (n=11);
3) Consultation skills (n=8);
4) Coordination of interpersonal relations (n=5);
5) Psychopathology (n=5);
6) Politics of the school systems (n=4);
7) Family assessment/dysfunction (n=4); and
8) Child development, biopsychology, and educational finance and law (n=3 each).

Within the content categories, five respondents added Group Counseling and Guidance to Intervention, and three respondents added Knowledge of Testing of People with Low Incidence Disabilities to Assessment.

Emphasis of Knowledge Areas (V). Table 6 presents the mean estimates of the percentage of the test that should be given to each content category and each component Knowledge Area.

The highest mean percentage, nearly nine percent of the test questions, was allocated by the Committee to the Behavioral/Social/Emotional questions in the Intervention content category. On the other hand, File Review Assessment was only given a mean allocation of 2.1 percent of the test questions.

The 1989 Committee of Examiners reviewed both the importance ratings made by the survey respondents and the percentage estimates made by the Validation Committee to determine the relative emphasis each knowledge area should have in new forms of the NTE School Psychologist Specialty Area Test. Particular attention was given to knowledge areas under Professional Practice, for example, which tended to have high importance ratings but low estimates of the percentage of the test that should be devoted to them.

Table 6

Validation Committee's (n=19)
Mean Estimates of Percentages of Test Questions
Needed for Each Knowledge Area
(November 1988)

Knowledge Areas Area Within Content Categories			Content Category Total
1. Assessment			23.2%
Interviewing	3.8	3.9	
Observation	4.7	4.7	
File Review	2.1	2.1	
Norm-referenced	6.2	6.2	
Criterion-referenced	3.1	3.1	
Curriculum-based	3.2	3.2	
Total[b]	23.1	23.2	
2. Intervention			28.3%
Beh./Soc./Emot.	8.8	8.9	
Instructional	6.7	6.8	
Inservice	3.5	3.5	
Referral Out	2.6	2.6	
Preven./Preref.	6.5	6.5	
Total	28.1	28.3	
3. Evaluation			11.5%
Interpret	3.8	3.8	
Program	4.2	4.2	
Technical Issues	3.4	3.5	
Total	11.4	11.5	
4. Professional Practice			15.8%
Ethics	4.9	4.9	
Standards	4.4	4.4	
Legal	6.5	6.5	
Total	15.8	15.8	

Table 6 (continued)
Validation Committee's (n=19)
Mean Estimates of Percentages
of Test Questions Needed for
Each Knowledge Area (ctd.)
(November, 1988)

Knowledge Areas	Uncorrected	Corrected[a]	Content Category Total
5. Psychological Foundations			12.1%
Normal/Abnormal	3.5	3.5	
Learning Theory	3.3	3.3	
Biological Bases	2.3	2.3	
Socio./Familial	3.0	3.0	
Total	12.1	12.1	
6. Educational Foundations			10.8%
School Org. and Op.	3.3	3.3	
Remediation	4.2	4.2	
Exceptional Learners	3.4	3.3	
Total	10.9	10.8	

[a] Adjusted to total category total percentage for each Committee member, and then averaged over Committee members. (This adjustment procedure changed only the mean values of Interviewing, Behavioral/Social/Emotional Intervention, Instructional Interventions, Technical Issues of Measurement, and Characteristics of Exceptional Learners by a tenth of a percent).

[b] Due to rounding, totals do not equal the Content Category sum.

Linkages of Knowledge Areas to Job Dimensions (S)

Table 7 presents the percentages of the 647 survey respondents that judged each of the six content categories to be important to competent performance in each of the seven job domains of a minimally qualified, credentialed school psychologist. Basically, each respondent made a dichotomous decision about whether or not knowledge of Evaluation, for example, was necessary to the performance of Research/Evaluation. The job dimensions that are underlined in Table 7 are those for which the largest percentages of respondents felt each knowledge area was necessary. For example, proportionally more respondents judged knowledge of Professional Practice to be important to the job dimension of Professional Standards than to any other job dimension.

Table 8 gives the mean ratings made by the Validation Committee of importance on the scale from 0 (of no importance) to 4 (extremely important) scale of each of the 24 knowledge areas to the performance of each of the seven job dimensions. Note, that the Knowledge Areas comprising Assessment were most important to the job dimension of Assessment. However, only the Behavioral Social/Emotional intervention and the Referral Out Intervention knowledge areas were most important to the Intervention job dimension, while Instructional Intervention and Prevention/Referral Intervention were most important to Consultation, and Inservice Intervention was most important to the Inservice job dimension. The knowledge areas within the Evaluation content category were rated most important to the Research job dimension, and the knowledge areas that comprise Professional Practice were most important to the Professional Standards job dimension. Under the content category, Psychological Foundations, the Normal/Abnormal foundations were most important to Consultation, while Socio-Familial Foundations were most important to Assessment. Knowledge of Learning Theory and Biological Bases were rated as most important to functions concerned with Intervention. The diversity of Psychological Foundations is reflected in the varied use of knowledge areas in this content category. Under Educational Foundations, School Organization and Operations and Remediation were rated as most important to Consultation, while knowledge concerning Exceptional Learners was rated as most important to the Assessment job dimension, reasonably, as consultation is an integral part of regular school functions, and Assessment involves the proper educational placement of students with diverse needs.

Table 7

Percent of Questionnaire Respondents
Who Rated Each Content Category
As Necessary to Minimal Competent
Performance of an Entry-Level School Psychologist

	Content Category					
Job Dimension	Assessment	Inter-vention	Evaluation	Prof. Practice	Psych. Foundation	Ed. Foundation
1. Assessement	69.6	50.9	69.2	65.2	69.9	58.3
2. Consultation	48.5	80.5	51.6	70.0	68.9	64.6
3. Intervention	59.8	64.0	55.8	68.3	73.7	68.5
4. Inservice/ Training, etc.	35.9	54.9	42.3	59.2	68.6	69.2
5. Research/ Eval.	50.2	32.3	64.0	49.5	62.3	53.8
6. Contin. Ed.	40.2	40.2	36.3	60.4	43.6	40.0
7. Professional Standards	50.1	45.4	41.6	82.8	37.7	31.7

Table 8

Mean Importance Ratings by the Validation Committee
of Each Knowledge Area to
Each of the Seven Job Dimensions

Knowledge Area	JOB DIMENSIONS							
	Assessment	Consult.	Interven.	Inserv.	Res/ Eval.	Con. Ed.	Prof. Stand.	
	1	2	3	4	5	6	7	Mean
I. Assessment								
Interviewing	4.0	4.0	3.8	2.5	3.1	1.0	2.6	3.0
Observation	3.9	3.8	3.6	2.5	3.4	1.1	2.4	3.0
File review	3.5	3.1	3.1	1.3	2.2	0.7	2.4	2.3
Norm-referenced	3.6	2.6	2.1	1.7	3.2	1.1	2.3	2.4
Criterion-referenced	3.5	2.6	2.6	1.8	2.9	1.2	2.2	2.4
Curriculum-based	3.5	2.8	2.8	2.0	2.9	1.3	2.1	2.5
Mean	3.7	3.2	3.0	2.0	3.0	1.1	2.3	
II. Intervention								
Beh./Soc./ Emot.	3.3	3.8	3.9	3.2	2.9	1.5	2.5	3.0
Instruct-ional	3.4	3.7	3.3	3.2	2.9	1.6	2.3	2.9
Inservice	1.9	3.3	3.0	3.8	2.0	2.0	1.6	2.5
Referral out	2.3	2.8	2.8	1.7	0.9	0.9	2.3	2.0
Preven./ Preref.	3.4	3.8	3.6	3.3	2.3	1.5	2.2	2.9
Mean	2.9	3.5	3.3	3.1	2.2	1.5	2.2	
III. Evaluation								
Interpret	3.5	3.1	3.3	3.0	3.9	2.8	2.6	3.2
Program	2.1	3.1	2.9	2.8	3.8	2.2	2.2	2.8
Technical Issues	3.6	2.5	2.1	2.0	3.9	1.8	2.3	2.6
Mean	3.1	2.9	2.8	2.6	3.9	2.3	2.4	

Table 8 (continued)

Mean Importance Ratings by the Validation Committee of Each Knowledge Area to Each of the Seven Job Dimensions

Knowledge Area	JOB DIMENSIONS							
	Assessment 1	Consult. 2	Interven. 3	Inserv. 4	Res/ Eval. 5	Con. Ed. 6	Prof. Stand. 7	Mean
Professional Practice								
Ethics	3.8	3.7	3.8	2.8	3.6	2.6	**3.9**	3.4
Standards	**3.9**	3.7	3.8	3.1	3.3	3.0	**3.9**	3.5
Legal	3.7	3.4	3.6	2.6	3.1	2.3	**3.9**	3.2
Mean	3.8	3.6	3.8	2.8	3.4	2.6	3.9	
Psychological Foundations								
Normal/ Abnormal	3.7	**3.8**	3.6	2.8	2.7	1.6	2.1	2.9
Learning Theory	3.0	**3.5**	**3.5**	2.9	2.8	2.0	2.1	2.8
Biological Bases	2.8	2.9	**3.0**	2.2	2.5	1.6	1.9	2.4
Socio./ Familial	**3.7**	3.6	3.5	2.7	2.7	1.7	2.3	2.9
Mean	3.3	3.5	3.4	2.6	2.7	1.7	2.1	
Educational Foundations								
School Org. and Op.	2.4	**3.6**	3.2	3.2	3.1	1.9	3.1	2.9
Remediation	3.2	**3.9**	3.4	3.0	2.5	1.8	2.2	2.8
Gifted	**3.9**	3.6	3.5	2.8	2.4	1.6	2.2	2.9
Mean	3.2	3.7	3.4	3.0	2.6	1.8	2.5	

[a] The job dimensions for which each Knowledge area is most important is underlined.

The job dimensions are coded as follows:

1 - Assessment
2 - Consultation
3 - Intervention
4 - Inservice
5 - Research
6 - Continuing Education
7 - Professional Standards

CONCLUSIONS

At its January 1989 meeting, the Committee of Examiners was given the opportunity to modify or refine the test specifications of the NTE School Psychologist Specialty Area Test after reviewing these results.

This study provided the committee with considerable information in the undertaking. The results included:

Follow-up Activities

The specific tasks of the 1989 Committee of Examiners were as follows:

a. Develop the test specifications for the new test forms:

b. Choose existing test questions that will sample knowledge areas that are important to the professional functions of entry-level school psychologists;

c. Develop new test questions that are consonant with how the knowledge areas that the questions sample are used in professional practice.

1. A list of professional job functions and job dimensions based on a review by 647 psychologists, who also rated the job dimensions for their importance to the job of a minimally qualified entry-level practitioner and who suggested additions to these dimensions and functions;

2. Ratings of the importance of each knowledge area, to the performance of the job of a minimally competent entry-level school psychologist and suggested additions to these knowledge areas;

3. Ratings of the importance of each area to the performance of each job dimension. These ratings provide a context for the ways in which test questions might sample knowledge;

4. Estimates of the percentages of test questions that should be devoted to each knowledge area.

Providing this type of information to the Committee of Examiners gave them the opportunity to build test specifications that reflect how knowledge is actually used on the job by entry-level school psychologists.

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Stage 2:

Specifying the Content Domain of the NTE School Psychologist Specialty Area Test

Gerald E. DeMauro
Educational Testing Service

INTRODUCTION

The Committee of Examiners (called "The Committee" throughout the text) for the NTE School Psychologist Specialty Area Test met from January 26 through January 29, 1989. The five members of the Committee were:

Member	Affiliation
David Barnet	University of Cincinnati
Andrea Canter	Minnesota Public Schools
Howard Knoff	University of South Florida
Antoinette Halsel Miranda	The Ohio State University
Ena Vasquez-Nutall	Northeastern University

The Committee was joined by the following staff of Educational Testing Service: G. DeMauro, A. Merritt, and K. O'Neill, all from test development; and J. Olson from Statistical analyses.

The major goal of the Committee was to provide the foundation for building two new forms of the test. Specifically, the Committee was given the tasks of:

- Developing content specifications for the new forms of the test that include the relative representation of each content knowledge area on these forms;
- Choosing test questions from the current form of the test that could be used as an overlap with the new test forms to permit form equating;
- Specifying contextual information for new test questions concerning the situations or settings in which school psychologists use their professional Knowledge to assure that each question would reflect how minimally competent entry-level school psychologists apply the knowledge sampled by that test questions on the job.

PROCEDURES

Sources of Information

Information to aid the Committee's judgments was available from several sources (DeMauro, 1989):

1. The content specifications of the first form of the test, that were adopted in 1986 by the original Committee of Examiners;

2. A survey of a randomly selected sample of the membership of the National Association of School Psychologists (NASP) that provided data concerning:

   - the importance of each of 24 knowledge areas that are represented on the first form of the test to the job of a minimally competent entry-level school psychologist;
   - the importance of seven job dimensions to the job of a minimally competent entry-level school psychologist;
   - the degree to which each knowledge area is important to the performance of each of the seven job dimensions;
   - any additions or deletions respondents recommended for consideration to the lists of job functions (98 of these comprised the seven job dimensions mentioned above) or the 24 knowledge areas that survey.

3. Judgments of a Committee of 19 NASP representatives that met in November, 1988, that included:

   - estimates of the percentage of the test questions that should be devoted to each of the 24 knowledge areas and each of the six superordinate content categories that these knowledge areas comprised;
   - ratings of the importance of each of the seven job dimensions by a minimally qualified entry-level school psychologist
   - Committee comments pertaining to the relevance of each question of the first form of the test to the job of a minimally qualified entry-level school psychologist.

Specifying the Content Domain

The Committee of Examiners was particularly concerned with respecifying the content domain of the test. The joint standards of the American

Psychological Association, American Educational Research Association, and the National Council on Measurement in Education (1985) explain how content validation "should be based on a thorough and explicit definition of the content domain" (page 60), and how expert judgment may be used to define this domain (page 10). Such standards normally apply to the use of job analysis techniques to develop tests used to select people for entry jobs. However, it is clear that development of tests that are not designed specifically for job selection, but rather are designed to establish a pool of minimally knowledgeable job candidates, can be aided as well as selection tests by clear specifications of when and how important knowledge areas are used in the performance of a particular job. Therefore, the data available to the Committee were integral to development of the test's content specifications.

Setting the Content Categories

The specifications for the first form of the NTE School Psychologist Specialty Area Test were organized into six superordinate content categories: Assessment, Intervention, Evaluation and Research, Professional Standards, Psychological Foundations, and Educational Foundations. Each of these categories subsumed a number of knowledge areas as shown in Table 1. Throughout the text of this paper, "content category" refers to these superordinate categories and "knowledge area" refers to the component areas.

The task of establishing the new content specifications was also hierarchically organized. The Committee of Examiners first established the content categories and then, within each of these content categories, established the component knowledge areas.

Appendix A (Stage 2) presents the forms that were used to establish the content categories. The Committee was directed to review the importance ratings [1] of each of the existing content categories, based on the survey of NASP membership, the percentages of test questions that the November meeting of the Validation Committee allocated to each content category, and also review the compilation of additions to the content categories, Knowledge areas, and job dimensions and activities, as suggested by the survey sample (Appendix B, Stage 2.)

The Committee of Examiners noted that the percentages of the test that the Validation Committee allocated to each of the six content categories did not represent a significant redistribution of the 135 questions on the test

[1] These are actually means of the ratings of the component knowledge areas within each content category.

(both logically and via chi-square). In fact, the Committee expressed the opinion that the original distribution of questions in content categories should be maintained for new forms of the test. Table 2 shows the original distribution of test questions and the estimates of the Validation Committee. After reviewing the compilation of suggested additions to the content categories, Knowledge areas, and job dimensions and activities made by the survey sample, the Committee agreed that these could be subsumed under the existing content categories, Knowledge areas, and job dimensions and activities.

Setting the Knowledge Areas

The members of the Committee of Examiners were told to review again the importance ratings made by the NASP survey sample of each knowledge area to the job of a minimally competent entry-level practitioner (see Appendix A, Stage 2 for instructions), and also review the percentages of the test allocated to each of the 24 knowledge areas by the Validation Committee, the Validation Committee's ratings of the importance of each knowledge area to each of the seven job dimensions, and the lists of additional knowledge areas recommended by the NASP survey sample.

The Committee noted that the original 24 knowledge areas were similar to those delineated in the NASP Standards (NASP, 1986), but that one area, History of School Psychology was not represented on the first form of the test. shows the distribution of knowledge areas allocated by the Validation Committee and the redistribution determined by the Committee of Examiners. Note that the original Committee of Examiners did not allocate percentages of test questions to specific Knowledge areas, but only to the superordinate content categories.

Job Context

The Committee was also asked to select a context of job dimensions in which each knowledge area was important. This context better-specifies the context for test questions, by delineating how each knowledge area is used in the job of an entry-level practitioner.

For most knowledge areas, ratings were available from the Validation Committee concerning its importance to the minimally-competent entry-level practitioner to the performance of each of the seven existing job dimensions. Where these data were available, the Committee of Examiners endorsed writing test questions in the context of the job dimensions that the Validation Committee rated as being most important to each knowledge area.

For knowledge areas which were sufficiently reworded, expanded, reduced, or new, the Committee of Examiners was asked to list, in order of importance to the job of an entry-level practitioner, the job dimensions for which each knowledge area is most important. The resulting list of the knowledge areas and associated job dimensions is given in Table 4.

NEXT STEPS

The expert judgments gathered thus far are potentially most helpful to the construction of a test with a great deal of evidence to support its content validity. Obviously, it remains to be documented that the questions actually presented to examinees represent these expert judgments and sample the targeted content domain.

Future Directions

To document use of the data gathered to this point on the importance and use of the knowledge areas, the test development procedure should require that:

- Item developers, who prepare test questions, classify each new test question according to the knowledge area and its use on the job or context, in terms of job dimensions.

- Test assemblers, who actually compose the test from the submitted items, choose and edit items to best represent the knowledge areas and job contexts in a way that is compatible with the expert judgments. Summary counts of all test questions, their job references and knowledge areas should be compared to allocations of questions to knowledge areas by the Committee of Examiners and the job contexts of the questions should be compared to the job dimensions the Committee of Examiners agreed to be most important for use of the knowledge area.

Table 1

Six Superordinate Content
Categories and the Twenty-Four
Component Knowledge Areas

Content Category	Knowledge Areas
I. Assessment	1. Interviewing 2. Observation 3. File Review 4. Norm-referenced Tests 5. Criterion-referenced Tests 6. Curriculum-based Assessment
II. Intervention	1. Behavioral/Social Emotional 2. Instructional 3. Inservice Staff Development 4. Referral Out 5. Prevention/Prereferral
III. Evaluation	1. Interpretation/Evaluation of Research 2. Program Evaluation 3. Technical Issues/Measurement
IV. Professional Practice	1. Ethnics 2. Professional Standards of Practice 3. Legal Issues
V. Psychological Foundations	1. Normal/Abnormal Development 2. Learning Theory 3. Biological Bases of Behavior 4. Sociocultural/Familial Influences
VI. Educational Foundations	1. Organizations and Operation of Schools 2. Instruction/Remedial Techniques 3. Characteristics of Exceptional Learners

Table 2

Percentage of Test Questions that Address Each Content Category of the NTE School Psychologist Test, and Mean Validation Committee (n=19) Estimates of Percentages of Questions that Should Address Each Content Category

Content Category	Percentage of Questions: Current (NTE exam)[a]	Committee Estimates
Assessment	25%	22.5%
Intervention	25	27.9
Evaluation	10	11.1
Professional Practice	20	15.6
Psychological Foundations	10	12.4
Educational Foundations	10	10.5
Total	100	100

[a] The test as it existed before the January 1989 Committee of Examiners meeting.

Table 3

Distribution of Knowledge Areas
on the NTE School Psychologist Test,
as Allocated by the Test
Validation Committee (November 1988)
and the Committee of Examiners (January 1989)

Content Category	Knowledge Area	Validation Committee Allocation[a]	Committee of Examiners Allocation	Difference
Assessment (25%)	Interviewing	4	4	0
	Observation	5	6	1
	File Review	2	2	0
	Norm-Referenced	6	7	1
	Criterion-Referenced	3	3	0
	Curriculum-Based	3	3	0
Prevention and Intervention (25%)	Consultation	11	7	-4
	Counseling	0	5	5
	Behavior Management	0	5	5
	Academic	7	4	-3
	Prevention	7	4	-3
Evaluation and Research (10%)	Design, inter. and eval. of research	4	4	0
	Program evaluation	4	2	-2
	Technical Issues in Measurement	3	4	1
Professional Practice (20%)	History and Found.	0	2	2
	Ethics	5	8	3
	Professional Standards	4	6	2
	Legal Found.	7	4	-3
Psychological Found. (10%)	Biological Bases	2	1	-1
	Cultural Diversity	0	2	2

[a] Differences between the total content category percentages and the sums of knowledge area percentages are due to slight variations in the allocation of percentages to the content categories.

Table 3 (cont).

Distribution of Knowledge Areas
on the NTE School Psychologist Test,
as Allocated by the Test
Validation Committee (November 1988)
and the Committee of Examiners (January 1989)

		Validation Committee Allocation[a]	Committee of Examinees Allocation[a]	Difference
Child and Adolescent Dev.		4	2	-2
Human Exceptionalities		0	2	2
Human Learning		3	2	-1
Social Bases of Behavior		3	1	-2
Educational Foundations (10%)	Exceptional Learners	3	3	0
	Instructional Remedial Tech.	4	4	0
	School Org. and Op.	3	3	0

[a] Differences between the total content category percentages and the sums of the knowledge areas percentages are due to slight variations in the allocation of percentages to the content categories.

Table 4

Two Job Dimensions For Which Each
Knowledge Area was Rated as Most
Important by the Committee of Examiners
(January 1989).

Content Category	Knowledge Area	Important Job Dimension Most	Second Most
Assessment	Interviewing	Consultation	Assessment
	Observation	Assessment	Consultation
	File Review	Assessment	Intervention
	Norm-Referenced	Assessment	Research
	Criterion-Ref.	Assessment	Research
	Curriculum-Based	Assessment	Research
Prevention and Evaluation	Consultation	Consultation	Assessment
	Counseling	Intervention	Consultation
	Behavior Mgmt.	Intervention	Consultation
	Academic	Intervention	Consultation
	Prevention	Consultation	Intervention
Evaluation and Research	Design, etc.	Research	Assessment
	Prog. Evaluation	Research	Consultation
	Technical Issues	Research	Assessment
Professional Practice	History and Found.	Professional Standards	Assessment
	Ethics	Professional Standards	Intervention
	Prof. Standards	Professional Standards	Assessment
	Legal Found.	Professional Standards	-
Psychological Found.	Biological Bases	Intervention	Consultation
	Cultural Diversity	Assessment	Consultation
	Child and Ad. Dev.	Consultation	Assessment
	Human Except.	Assessment	Consultation
	Human Learn.	Consultation	Intervention
	Social Bases	Assessment	Consultation
Educational Foundations	Exceptional Learn.	Assessment	Consultation
	Instructional/Rem.	Consultation	Assessment
	School Org. and Op.	Consultation	Inservice

Stage 3

Follow Up to:

Specifying the Content and Context of NTE School Psychologist Items for Item Writers

Gerald E. DeMauro
Educational Testing Service

INTRODUCTION

A survey of the membership of the National Association of School Psychologists provided a list of their professional activities and knowledge areas that are important to the job of entry-level school psychologists. An expert committee then established the professional activity for which each knowledge area was most important and also recommended what percentage of test questions each knowledge area should receive. These data were provided to the NTE School Psychologist Committee of Examiners to help them determine the content specifications of the test and the professional situations or settings (job context), for each type of test question. From these content and context specifications, items writers were given specific instructions concerning test question development. Finally, items were solicited from content experts as follows:

a. Item writers were nominated by the Committee of Examiners;

b. Nominees were asked to send resumes;

c. Resume strengths were matched by the test assembler to content categories;

d. Nineteen nominees were asked to submit up to 20 items each in two content categories and in associated job contexts.

Instructions to the Item Writers

In addition to general information on item writing (Appendix A, Stage 3) each item writer was given two other sources of information about the items: the context in which items were to be written and the content categories and constituent knowledge areas in which items were to be written. The forms on which items were to be transcribed (Appendix B, Stage 3) required item writers to supply the content category, as well as the job domain context and the constituent knowledge area for each item they submitted and the rationale for the item key.

The job domain context for each item to be written was provided in the Content Specification Assignment sheet (Appendix C, Stage 3). The sheet directed item writers to review a list of Professional Skills of school psychologists that provided the exact activities in which each knowledge area was rated to be most important. The Content Specification Assignment sheet also provided the percentage of test questions that would be devoted to the content category as well as the percentage of test questions that would be devoted to each constituent knowledge area.

Each item writer was assigned two content categories, based on their experience a school psychologist, as indicated on their resumes, and each received two types of content Specification Assignment sheets, one for each of the assigned content categories.

Conclusion

The information provided to item writers directly follows the prescription of the ongoing job analysis of school psychology. At this point bridges have been built from a large scale survey of knowledge, skills, and abilities used by school psychologists to content and job context specifications for the NTE School Psychologist test and then from these content and context specifications to actual test items. Most importantly, these exact specifications now enable an item review and selection that is directly connected to job-related criteria and provides extensive documentation of test content validity. The test assembler can now follow the prescription of the job analysis in terms of representation of knowledge areas on new test forms as well assure that knowledge areas sampled by test items are presented in the context of their use by entry level school psychologists.

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STAGE 1

APPENDICES

NASP QUESTIONNAIRE
APPENDIX A

School Psychologist Professional Skills

A. ASSESSMENT

1. Selects psycho-educational assessment procedures, based on referral information, issues that arise during the assessment process, and psychometric properties of scales and techniques to obtain appropriate information about the child/adolescent's functioning.

2. Selects psycho-educational assessment procedures based on existing research and practice pertaining to the presenting problem or disorder in order to obtain "reduced potential" bias information about the child/adolescent's functioning.

3. Based upon referral questions and/or issues that arise during assessment refers child to qualified specialist(s) within the educational setting (e.g., educational diagnostician, speech-language pathologist) in order to obtain additional information about the child/adolescent's functioning.

4. Based upon referral information and/or issues that arise during assessment, refers child/adolescent to qualified specialist(s) outside the educational setting (e.g., audiologist, pediatric neurologist) in order to obtain additional information about the child/adolescent's functioning.

5. Obtains relevant background information by reviewing records (e.g., cumulative, medical), and interviewing parents and/or teachers and other educational personnel to obtain appropriate information about the child/adolescent's functioning.

6. Utilizing structured and unstructured techniques, observes children/adolescents in carefully selected settings (e.g., classrooms, playground) in order to obtain information on their behavior in the natural environment.

7. Administers psycho-educational assessment procedures to children/adolescents in necessary areas (e.g., intelligence, perceptual-motor, and personality) utilizing standardized or nonstandardized (e.g., testing the procedures limit) procedures in order to determine the level and/or nature of the children/adolescents functioning.

8. Determines the results of such psycho-educational assessment in accordance with research, psychometric limitations, and problem-solving procedures and integrates the findings into systematic case formulations and plans for intervention.

9. Analyzes and synthesizes the results of psycho-educational assessment procedures in order to develop a strength and weakness statement and/or description of the child/adolescent's psychological and educational strengths and weaknesses.

10. Presents and interprets assessment results to educational personnel in case conferences in order to share information regarding the nature and/or level of the child/adolescent's functioning and potentially helpful strategies.

11. Presents and interprets assessment results to parents/guardian in case conferences to share information that will be useful to the problem solving process.

12. Based on assessment and other information, develops recommendations regarding alternatives and educational implications with parents and educational personnel in order to assist in determining appropriate child/adolescent-related services.

13. Contributes ideas and objectives based upon psycho-educational assessment and other information for the individual educational plans of children/adolescents requiring special educational services in order to assure that the plans are consistent with identified areas of strength and weakness.

14. Develops psycho-educational recommendations/interventions for nonhandicapped children/adolescents with the assistance of parents and/or educational personnel to meet the children's/adolescents' needs.

15. Adheres to legal procedures as contained in federal and state mandates to ensure the rights of parents and children.

16. Writes comprehensive psycho-educational reports based upon assessment findings, to help communicate results to parents and professionals.

17. The assessment process (should be used) to monitor the progress of children/adolescents through systematic communication with professionals and parents in order to ensure the effectiveness of recommendations/interventions.

B. **CONSULTATION**

1. Consults with school personnel, including teachers, administrators, and special services staff, to identify the academic, behavioral, and/or social/emotional needs of individual students.

2. Consults with school personnel, including teachers, administrators, and special services staff, to develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

3. Consults with school personnel, including teachers, administrators, and special services staff, to identify the academic, behavioral, and/or social/emotional needs of groups of students.

4. Consults with school personnel, including teachers, administrators, and special services staff, to develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

5. Consults with individuals and agencies other than school systems to identify the academic, behavioral, and/or social/emotional needs of individual students.

6. Consults with individuals and agencies other than school systems to develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

7. Consults with individuals and agencies other than school systems to identify the academic, behavioral, and/or social/emotional needs of groups of students.

8. Consults with individuals and agencies other than school systems to develops interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

9. Consults with parents to identify the academic, behavioral, and/or social/emotional needs of individual students.

10. Consults with parents to develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

11. Consults with school district administrators and local building staff to identify system needs at the building or district level.

12. Consults with school district administrators or local building staff to develop interventions that address system needs at the building or district level.

13. Consults with individuals and agencies other than school systems to identify systems needs at the building or district level.

14. Consults with individuals or agencies other than school systems to develop interventions that address systems needs at the building or district level.

15. Consults with other school psychologists and multidisciplinary personnel to identify the academic, behavioral, and/or social/emotional needs of individual students.

16. Consults with other school psychologists and multidisciplinary personnel to develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

17. Consults with other school psychologists and multidisciplinary personnel to identify the academic, behavioral, and/or social/emotional needs of groups of students.

18. Consults with other school psychologists and multidisciplinary personnel to develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

19. Provides information about child development and education to school personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of individual students.

20. Provides information about child development and education to school personnel, in oral or written form, to develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

21. Provides information about childhood disorders and exceptionalities to school personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of individual students.

22. Provides information about childhood disorders and exceptionalities to school personnel, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

23. Provides information about child development and education to school personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

24. Provides information about child development and education to school personnel, in oral or written form, to develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

25. Provides information about childhood disorders and exceptionalities to school personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

26. Provides information about childhood disorders and exceptionalities to school personnel, in oral or written form, to develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

27. Provides information about child development and education to nonschool agency personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of individual students.

28. Provides information about child development and education to nonschool agency personnel, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

29. Provides information about childhood disorders and exceptionalities to nonschool agency personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of individual students.

30. Provides information about childhood disorders and exceptionalities to nonschool agency personnel, in oral or written form, to help them develop interventions to address the academic, behavioral, and/or social/emotional needs of individual students.

31. Provides information about child development and education to nonschool agency personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

32. Provides information about child development and education to nonschool agency personnel, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

33. Provides information about childhood disorders and exceptionalities to nonschool agency personnel, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

34. Provides information about childhood disorders and exceptionalities to nonschool agency personnel, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

35. Provides information on child development and education to parents, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of individual students.

36. Provides information about child development and education to parents, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

37. Provides information about childhood disorders and exceptionalities to parents, in oral or written form, to help them identify the

academic, behavioral, and/or social/emotional needs of individual students.

38. Provides information about childhood disorders and exceptionalities to parents, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of individual students.

39. Provides information about child development and education to parents, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

40. Provides information about child development and education to parents, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

41. Provides information about childhood disorders and exceptionalities to parents, in oral or written form, to help them identify the academic, behavioral, and/or social/emotional needs of groups of students.

42. Provides information about childhood disorders and exceptionalities to parents, in oral or written form, to help them develop interventions that address the academic, behavioral, and/or social/emotional needs of groups of students.

43. Participates in multidisciplinary teams to identify, analyze, and plan programs that address the academic, behavioral, and/or social/emotional needs of individual students.

44. In multidisciplinary teams provides information about child development and education, in oral or written form, to help them identify, analyze, and plan programs that address the academic, behavioral, and/or social/emotional needs of individual students.

45. In multidisciplinary teams provides information about childhood disorders and exceptionalities, in oral or written form, to help them identify, analyze, and plan programs that address the academic, behavioral, and/or social/emotional needs of individual students.

46. Facilitates the functioning of multidisciplinary teams by utilizing group process skills to identify, analyze, and plan programs that address the academic, behavioral, and/or social/emotional needs of individual students.

47. Coordinates the functioning of multidisciplinary teams by serving as the designated leader to identify, analyze, and plan programs that address the academic, behavioral, and/or social/emotional needs of individual students.

48. Provides information to governmental and regulatory agencies to assist in the determination of policies and procedures affecting children and youth.

49. Consults with government and regulatory agencies to assist in the determination of policies and procedures affecting children and youth.

C. DIRECT INTERVENTIONS

1. Provides individual counseling/therapy for children/adolescents experiencing adjustment difficulties in order to promote personal and educational development.

2. Provides group counseling/therapy for children/adolescents whose personal/school difficulties and personalities indicate that they would benefit from such intervention, in order to help them learn from each other and receive peer assistance.

3. Provides group guidance activities for parents who need assistance with parenting issues in order to assist with parent/child issues.

4. Provides group counseling for parents experiencing personal difficulties that may affect their child/adolescent's school functioning or personal development.

5. Provides family counseling/therapy with parents, individually and/or as couples with personal or marital issues in order to promote their child/adolescent's educational and personal development.

6. Provides counseling/therapy services for families of children/adolescents experiencing school/emotional difficulties in order to help resolve family issues that may be affecting the children's/adolescents' school or personal adjustment.

7. Provides counseling/therapy for school staff, to assist with personal and professional performance adjustment.

8. Leads group guidance sessions for school staff experiencing similar work-related difficulties in order to provide needed information and assist them in developing approaches/solutions to problems encountered as educators, integrating content, knowledge, (e.g., of social effects of learning disabilities), with group facilitation techniques.

9. Assists high school students (handicapped and non-handicapped) to make vocational choices.

D. IN-SERVICE/EDUCATIONAL FUNCTION/STAFF DEVELOPMENT

1. Develops possible inservice topics by surveying staff and learning of their educational needs/areas of interest in order to provide identified continuing education experiences.

2. Suggests educational presentations for staff and other audiences (e.g., parents, community agency personnel), in order to implement educational programs that will expand psychological awareness of issues related to children/adolescents.

3. Presents inservice programs for school staff, to provide relevant continuing education experiences.

4. Presents educational programs to such audiences as parents or community agency personnel based on personal expertise in order to expand awareness of psychological issues related to children/adolescents.

5. Presents educational programs to children/adolescents in response to requests from students themselves and/or requests from such groups as teachers or parents in order to perform preventative mental health services.

6. Facilitates presentation of topics to school staff, children, and/or parents that are outside areas of their interest/expertise by contacting outside experts and arranging for programs/workshops in order to provide relevant continuing education experiences.

7. Supervises other practicing school psychologists.

8. Supervises students/interns training to become school psychologists.

9. Supervises professionals in allied fields practicing within their areas of specialty.

E. RESEARCH/PROGRAM EVALUATION

1. Evaluates effectiveness of psychological services provided by utilizing such methods as surveying, interviewing, observing and conducting follow-up psychological assessments of recipients of services.

2. Assists in development/revision of educational programs or services by collecting and interpreting evaluation data.

3. In order to improve diagnostic-prescriptive process, develops local normative data for commonly used psychological and educational instruments by testing representative groups of children/adolescents and compiling statistics.

4. Conducts field-based research with children/adolescents that is responsive to needs encountered in practice and/or the literature in order to clarify professional problems and extend the body of knowledge relevant to school psychology.

F. CONTINUING EDUCATION/PROFESSIONAL GROWTH

1. Joins professional organizations that provide up-to-date information relevant to the practice of psychology in the schools.

2. Reads current journals, books, and other publications pertinent to the practice of school psychology.

3. Actively participates in professional organizations.

4. Attends continuing education seminars/workshops sponsored by professional organizations.

5. Takes university courses relevant to professional functioning.

G. PROFESSIONAL STANDARDS

1. Reviews referrals from parents, teachers, administrators, other professionals, and children themselves to determine appropriate responses e.g., assessment, consultation, counseling.

2. Adheres to the ethical principles of the American Psychological Association, National Association of School Psychologists, and state Associations, and integrates them into daily practice.

3. Adheres to state department of education standards and rules related to the provision of school psychological services.

4. Adheres to state licensing laws and state examining board rules regulating the provision of school psychological services.

5. Adheres to state and national professional organization standards related to the provision of school psychological services.

APPENDIX B

Despective Statistics for Survey Respondents

I. Educational Background

Degrees	N[a]	%	Median Year of Attachment
Bachelors	357	55.2	1971
Masters	497	76.8	1976
Specialty	203	31.4	1981
Doctorate	145	22.4	1982
Other	47	7.3	1981

II. Sex

Missing	11	1.7%
Male	247	38.2
Female	389	60.1
Total	647	100.0

III. Ethnicity Total

	N	Percent
Unknown	10	1.5
Black, Afro-American, Negro	18	2.8
Native American, Alaska Native, or Aleut	3	0.5
Pacific, Asian American	6	0.9
Puerto Rican	3	0.5
Other Hispanic, Latin American	5	0.8
White	600	92.7
Other	2	0.3
Total	647	100.0

IV. Median years of School Psychology Experience = 8.0 years

V. Principal Employment Setting

Place[a]	N	Percent
Special School	33	5.1
Regular Preschool	12	1.9
Special Ed.-Preschool	21	3.2

[a] Duplicate counts are included

Stage 1

APPENDIX B

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Total	647	100.0

III. Ethnicity Total

	N	Percent
Unknown	10	1.5
Black, Afro-American, Negro	18	2.8
Native American, Alaska Native, or Aleut	3	0.5
Pacific, Asian American	6	0.9
Puerto Rican	3	0.5
Other Hispanic, Latin American	5	0.8
White	600	92.7
Other	2	0.3
Total	647	100.0

IV. Median years of School Psychology Experience = 8.0 years

V. Principal Employment Setting

Place[a]	N	Percent
Special School	33	5.1
Regular Preschool	12	1.9
Special Ed.-Preschool	21	3.2

[a] Duplicate counts are included

Regular Elementary	222	34.3
Special Ed. -Elementary	88	13.6
Regular Secondary	81	12.5
Special Ed. -Secondary	63	9.7
College/University	36	5.6
Hospital	11	1.7
Rehabilitation Center	4	0.6
Home Health Agency	1	0.2
Private Physician's Office	2	0.3
Own Office	12	1.9
Other	188	29.1

VI. Percentage of Professional Time Spent in:

Duty	Modal Response	Percent of Respondents who were in	Median Response
Administration	0	41.3	4.6
Assessment	50	15.0	40.0
Consultation	20	21.7	19.6
Intervention	10	21.8	10.3
Inservice, etc.	5	29.6	4.5
Research, evaluation	0	49.0	0.6
Continuing education	5	37.1	4.6
Professional standards	0	56.6	0.0

VII. Certification Status

A. Certified

	N	Percent
Missing	26	4.4
Yes	600	92.4
No	21	3.2
Total	647	100.0

B. Certification Area[a]

	N	Percent
1. School Psychologist	60	86.6
2. School Psychometrist	19	2.9
3. Associate School Psych.	18	2.8
4. Ed. Examiner Diag.	11	1.7
5. Psychological Examiner	12	1.9
6. Other Certification	45	7.0

VIII. Licensure Status

A. Licensed

	N	Percent
Missing	63	9.7
Yes	201	31.5
No	380	58.7
Total	647	100.0

B. Licensure Area[a]

	N	Percent
Psychologist	85	13.1
School Psychologist	95	14.7
Other	51	7.9

IX. Primary Orientation

Orientation[a]	N	Percent
Humanistic	52	8.0
Behavioral	142	21.9
Social Cognitive	78	12.1
Eclectic	339	52.4
Adlerian	16	2.5
None	4	0.6
Other	27	4.2

X. Practicum Experience[a]

Setting	N	Percent
Preschool	116	17.9
Elementary	374	57.8
Secondary	230	35.5
Special ed. -Preschool	105	16.2
Special ed. -Elementary	279	43.1
Special ed. -Secondary	188	29.1
Hospital	70	10.8
Mental Health Center	97	15.0
Other	89	13.8

[a] Duplicate counts are included.

XI. Internship Experience[a]	N	Percent
Preschool	133	20.6
Elementary	423	65.4
Secondary	371	57.3
Special ed. -Preschool	162	25.0
Special ed. -Elementary	384	59.4
Special ed. -Secondary	325	50.2
Hospital	59	9.1
Mental Health Center	82	12.8
Other	65	10.1

XII. Hours of Internship and Practicum:

	25% tile	50% tile	75% tile	90% tile	truncated range[b]
Internship:	419.4	985.9	129.0	1641.6	1-4000
Practicum:	51.7	222.5	501.8	935.4	3-3000

XIII. No Practicum: 13.6%
No Internship: 11.4%

[a] Duplicate counts are included.
[b] Range minus lowest and highest values.

NASP Questionnaire
PART 1

Based on the results of an extensive job analysis, the profession of school psychologist can be broken down into the following seven broad dimensions of professional skills (see Appendix A for detailed job tasks):

Assessment - plans, obtains, analyzes, interprets, and presents relevant information
Consultation - consults with school personnel, parents, and others in the delivery of school psychological services
Intervention - provides individual or group counseling or therapy to clients, families, and others
Inservice/Training/Staff Development - provides for necessary training for other staff
Research/Program Evaluation - conducts personal research or evaluation of relevant topics or programs
Continuing Education/Professional Growth - reads professional literature, attends professional meetings
Professional Standards - adheres to ethical and legal standards

We are asking you to ascertain the importance of competent performance in each of these job dimensions to a minimally qualified, newly credentialed school psychologist.

Importance at Credentialing: Regardless of how often a technique or procedure or dimension of professional practice is used, please indicate how important it is to competent performance by a minimally qualified, newly credentialed school psychologist. Use the following scale.

(0) of no importance
(1) of little importance
(2) moderately important
(3) very important
(4) extremely important

Job Dimensions	IMPORTANCE				
	no	little	moderate	very	extreme
Assessment	0	1	2	3	4
Consultation	0	1	2	3	4
Intervention	0	1	2	3	4
Inservice/Training/ Staff Development	0	1	2	3	4
Research/Program Evaluation	0	1	2	3	4
Contin. Educ./Profess. Growth	0	1	2	3	4
Professional Standards	0	1	2	3	4

Please refer to the detailed listing of job tasks related to the profession of a school psychologist (Appendix A), and indicate in the space below any you believe should be added.

Please indicate any job tasks you think should be deleted from Appendix A.

NASP Questionnaire
PART 2

Please rate the importance of each of the following knowledge areas to competent performance of the job tasks of a minimally qualified, newly credentialed school psychologist.

Importance at Credentialing: Regardless of how often the knowledge is used, please indicate how important it is to the job competence of a minimally qualified, newly credentialed school psychologist. Use the following scale.

(0) of no importance
(1) of little importance
(2) moderately important
(3) very important
(4) extremely important

Knowledge Area	IMPORTANCE				
	no	little	moderate	very	extreme
Assessment					
A. Interviewing	0	1	2	3	4
B. Observation	0	1	2	3	4
C. File Review	0	1	2	3	4
D. Norm-referenced Tests	0	1	2	3	4
E. Criterion-referenced Tests	0	1	2	3	4
F. Curriculum-based Assessment	0	1	2	3	4
Intervention					
A. Behavioral/Social/Emotional	0	1	2	3	4
B. Instructional	0	1	2	3	4
C. Inservice Staff Development	0	1	2	3	4
D. Referral Out	0	1	2	3	4
E. Prevention/Prereferral	0	1	2	3	4
Evaluation					
A. Interpret./Eval. of Research	0	1	2	3	4
B. Program Evaluation	0	1	2	3	4
C. Technical Issues/Measurement	0	1	2	3	4
Professional Practice					
A. Ethics	0	1	2	3	4
B. Profess. Standards of Practice	0	1	2	3	4
C. Legal Issues	0	1	2	3	4
Psychological Foundations					
A. Normal/Abnormal Development	0	1	2	3	4
B. Learning Theory	0	1	2	3	4
C. Biological Bases of Behavior	0	1	2	3	4
D. Sociocultural/Familial Influences	0	1	2	3	4
Educational Foundations					
A. Organization & Operation of Schools	0	1	2	3	4
B. Instruct./Remedial Techniques	0	1	2	3	4
C. Characteristics of Except. Learners	0	1	2	3	4

Please refer to the listing (on page 3) of knowledge areas related to competence as a school psychologist and indicate in the space below any you believe should be added.

Please indicate any knowledge areas you think should be deleted from this list.

NASP Questionnaire
PART 3

We also would appreciate your assessment of the intersection of job dimensions and knowledge areas. In the matrix below, please mark with an X any knowledge area that is necessary for competent performance as a minimally qualified, newly credentialed school psychologist in each job dimension. For example, if you think knowledge of professional practice is necessary to the practice of intervention, you would place an X at that intersection.

Knowledge Areas

1. Assessment
2. Intervention
3. Evaluation
4. Professional Practice
5. Psychological Foundations
6. Educational Foundations

Job Dimensions	1 ASSESSMENT / INTERVENTION	2	3 EVALUATION	4 PROF. PRACTICE	5 PSYCH. FOUND	6 EDUC. FOUND
A. Assessment						
B. Consultation						
C. Intervention						
D. Inservice/Training/ Staff Development						
E. Research/Evaluation						
F. Contin. Education						
G. Profess. Standards						

NASP Questionnaire
Background Information

Please print your responses to the following questions.

1. Name: _____

2. Business Address: (organization) _____

(street) _____

(city, state) _____

(zip code) _____

3. Education:

____ Bachelor's year received _____

____ Master's year received _____

____ Specialist year received _____

____ Doctorate year received _____

____ Other year received _____

4. Gender: ____Male ____ Female

5. Race/ethnicity:

_____ Black, Afro-American, or Negro

_____ Mexican American or Chicano

_____ Native American, Alaska Native, or Aleut

_____ Pacific/Asian American

_____ Puerto Rican

_____ Other Hispanic or Latin American

_____ White

_____ Other

6. Indicate the total number of years that you have actively practiced as a school psychologist: _____ years

7. Please check the one setting below that best describes your principal place of employment:

____ Special School
____ Preschool (reg. education)
____ Preschool (spec. education)
____ Elementary School (reg. ed.)
____ Elementary School (spec. ed.)
____ Secondary School (reg. ed.)
____ Secondary School (spec. ed.)
____ College-University
____ Hospital
____ Rehabilitation Center
____ Home Health Agency
____ Private Physician's Office
____ Own Office
____ Other (specify) _____

8. Indicate, in percentages, the approximate breakdown of your professional time (percentages must add to 100%):

____ Administration
____ Assessment
____ Consultation
____ Intervention
____ Inservice/Training/Staff Development
____ Research/Program Evaluation
____ Contin. Educ./Prof. Growth
____ Professional Standards
100 %

9. Indicate your current credentials.

a. Certified ____Yes ____No

If yes, certified as:

____ School Psychologist
____ School Psychometrist
____ Associate School Psychologist
____ Educational Examiner/Diagnostician
____ Psychological Examiner
____ Other (specify) _____

b. Licensed ____ Yes ____ No

If yes, licensed as:

____Psychologist
____School Psychologist
____Other (specify) _____

10. Indicate your primary orientation to school psychological services.

____ Humanistic

____ Behavioral

____ Social Cognitive

____ Eclectic

____ Adlerian

____ None

____ Other (specify) _____

11. Indicate in which of the following settings you received experience during practicum and internship.

		Practicum	Internship
Public School Regular Ed.	Preschool	_____	_____
	Elementary	_____	_____
	Secondary School	_____	_____
Public School Special Ed.	Preschool	_____	_____
	Elementary	_____	_____
	Secondary School	_____	_____
Hospital		_____	_____
Mental Health Center		_____	_____
Other (specify) _____		_____	_____

12. Indicate the length of time of the following.

Internship _____ hours

Practicum _____ hours

Did not have practicum _____

Did not have internship _____

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APPENDIX D

Knowledge Area Importance to the

Dimensions of the Job of a School Psychologist

The NTE School Psychologist Test samples 24 knowledge areas. For test development purposes, please rate importance of each of these knowledge areas to the performance of seven major job dimensions of the school psychologist. These job dimensions are:

I. Assessment

II. Consultation

III. Intervention

IV. Inservice/Training/Staff Development

V. Research/Evaluation

VI. Continuing Education

VII. Professional Standards

In your ratings, use the following scale:

0 = Of no importance to job dimension

1 = Of little importance to job dimension

2 = Moderately important to job dimension

3 = Very important to job dimension

4 = Extremely important to job dimension

Each knowledge area should receive seven ratings of 0 (no importance to 4 (extremely important)

Please rate each of the 24 knowledge areas that follow from 0 (no importance) to 4 (extremely important) for its importance to each of the seven dimensions of the job of a school psychologist, as listed on the previous page.

KNOWLEDGE AREA	Importance Ratings (0-4) of Job Dimensions						
	I	II	III	IV	V	VI	VII
Assessment Interviewing							
Observation							
File review							
Norm-referenced tests							
Criterion-referenced tests							
Curriculum-based assessment							
Intervention							
Behavioral/social/emotional							
Instructional							
Inservice staff development							
Referral out							
Prevention/pre-referral							
Evaluation							
Interpretation/evaluation of research							
Program evaluation							
Technical issues/measurement							
Professional Practice							
Ethics							
Professional standards of practice							
Legal issues							
Psychological Foundations							
Normal/abnormal development							
Learning theory							
Biological bases of behavior							
Sociocultural/familial influences							
Educational Foundations							
Organization and operation of schools							
Instructional/remedial techniques							
Characteristics of exceptional learners							

Representation of Knowledge Areas

in School Psychologist Test

Listed below are 24 Knowledge Areas grouped into six major areas that form the Content Specifications for the NTE School Psychologist Test. Next; to each of the 24 component areas, estimate the percentage of the test, in terms of number of test questions, that should address this area.

For example, if you feel that 5 percent of the test should address criterion-referenced testing, you would put "5" in the blank following "Criterion-referenced testing." The total of your 24 estimates should equal 100%. As a guide, the total of each of the six major areas, as they currently appear in the test are:

Assessment 25%

Intervention 25%

Evaluation 10%

Professional Practice 20%

Psychological Foundations 10%

Educational Foundations 10%

School Psychologist

(Note: Assessment is conceived of as including the elements of selection, interpretation, and synthesis of data, as appropriate, for a variety of procedures.)

Percent of Test	Area
	I. Assessment
	o Procedures
_____	1. Interviewing (various sources, e.g., parents, teachers, child)
	o for diagnostic purposes
	o interpretation of interview
_____	2. Observation (various types, e.g., formal/informal, time sampling, setting-specific [e.g., student-teacher interaction])
	o interpretation of observation
	o application of diagnosis and prescription
_____	3. File Review (various sources, e.g., educational, social, medical)
	o interpretation of file information
	o application of diagnosis and prescription
_____	4. Norm-referenced Tests (behavioral/social/emotional)
	o e.g., tests of intelligences, achievement, adaptive behavior
	o interpretation

Percent of Test | Area

- o technical elements
- o application of diagnosis

____ 5. Criterion-Referenced Tests

- o e.g., for determining instructional levels or instructional goals

_____ 6. Curriculum-based Assessment

II. Intervention (specifically includes intervention by the school psychologist)

- o Goals/Target Levels

_____ 7. Behavioral/Social/Emotional

- o direct or indirect (indirect includes consultation)
- o includes counseling, social skills training, behavior management, home school programs, etc..

_____ 8. o direct or indirect (indirect includes consultation)

- o VI.B is a related area

_____ 9. In-Service Staff Development

_____ 10. Referral Out

- o includes knowing when to refer out
- o Activities
  - o Identification of Needs
    - o frequency, intensity, duration
  - o Program Planning

Percent of Test	Area
	o Program Development
	o utility
	o decision
	o availability
	o feasibility
	o Program Implementation
	III. Evaluation
_____	11. Interpretation and Evaluation of Research
	o e.g., test development, norms, technical adequacy
	o aptitude-treatment interaction research
	o group and single subject designs
	o dependent and independent variables
	o reliability
_____	12. Program Evaluation
	o professional accountability [see 4.7 of NASP Service Provides Standards]
	o effectiveness of intervention
	o evaluation of programs
	- does it adequately identify kid?
	- does it work?
	o single subject design

Percent of Test	Area
___	13. Technical Issues in Measurement
	o e.g., SEM, confidence intervals, s.d.'s, measures of central tendency, standard scores, difference scores, reliability
	IV. Professional Practice
_____	14. Ethics (NASP, APA standards)
_____	15. Professional Standards of Practice
	o common elements from NASP and APA
_____	16. Legal Issues
	a. e.g., 94-142, litigation
	o from 94-142 emphasize practice (e.g., procedural safeguards)
	o re litigation also emphasize application to practice
	b. Access to records (FERPA)
	c. Child abuse (e.g., reporting)
	V. Psychological Foundations
_____	17. Normal and Abnormal Development
_____	18. Learning Theory
_____	19. Biological Bases of Behavior
_____	20. Sociocultural and Familial Influences
	o e.g., cultural diversity, group dynamics

Percent of Test	Area
	VI. Educational Foundations
_____	21. Organization and Operation of Schools o regular and special ed (cascade and services, LRE, teaming)
_____	22. Instructional/Remedial Techniques o e.g., task analysis, direct instruction, precision teaching, peer tutoring...
_____	23. Characteristics of Exceptional Learners

Total = 100%

APPENDIX D

Knowledge Area Importance to the

Dimensions of the Job of a School Psychologist

The NTE School Psychologist Test samples 24 knowledge areas. For test development purposes, please rate importance of each of these knowledge areas to the performance of seven major job dimensions of the school psychologist. These job dimensions are:

I. Assessment

II. Consultation

III. Intervention

IV. Inservice/Training/Staff Development

V. Research/Evaluation

VI. Continuing Education

VII. Professional Standards

In your ratings, use the following scale:

0 - Of no importance to job dimension

1 - Of little importance to job dimension

2 - Moderately important to job dimension

3 - Very important to job dimension

4 - Extremely important to job dimension

Each knowledge area should receive seven ratings of 0 (no importance to 4 (extremely important)

STAGE 2

APPENDICES

Stage 2

Appendix A

In your work folder, you will find the current content specifications of the NTE School Psychologist Specialty Area Test. Please review these carefully. Also in your folders is a copy of the analysis of the job of an entry-level school psychologist. Please review Table 5 of the report of this analysis, which presents the mean importance ratings given to each of the 24 knowledge areas that currently comprise the test. These ratings were made by ba sample of 647 members of the National Association of School Psychologists. The importance ratings that were given to test knowledge areas range from 0 (of no importance) to 4 (extremely important), and represent the judgment of the importance of each knowledge area to the job of a minimally competent entry-level school psychologist.

Please also review the content specifications of the current form of the test, giving special attention to the component knowledge areas for each content category and the percentage of test questions that are currently devoted to these content categories. Table 6 of the report of the analysis presents the results of the estimate of the content category and to each component knowledge area. These estimates were made by the 19 members of the NTE School Psychologist Specialty Area Test Validation Committee at their November 1988 meeting.

Finally, please review the lists of additional content categories and knowledge areas that were suggest by NASP survey respondents, and that are provided in your work folders. In deciding on which knowledge areas should be represented on new forms of the test, you should judge whether any of these suggested additions are already covered by the current content specifications or should be represented as new knowledge areas on the new forms of the test. For each sheet that follows, please list the knowledge areas that should be represented in each content category. Please also list the approximated percentage of the test questions that should be devoted to each of these knowledge areas, and compare the sums of these percentage to the percentage of test questions that the committee has judged to represent the whole content category.

Listed below are the six content categories that comprise the current content specifications of the NTE School Psychologist Specialty Area Test. In your folders you will find a copy of the analysis of a survey of the membership of the National Association of School Psychologists. Please review Table 5, which gives a mean importance rating for each content category by averaging the importance ratings of the component knowledge areas. Remember, these ratings range from 0 (of no importance) to 4 (extremely important), and represent judgments about the importance of each knowledge area to the performance of the job of a minimally competent entry-level school psychologist.

Please also review the content specifications of the current form of the test, giving special attention to the component knowledge areas for each content category and percentage of test questions that are currently devoted to each content category. Table 6 of the report of the analysis presents the results of the estimate of the percentage of test questions that should be given to each content category and to each component knowledge area. These estimates were made by the 19 members of the NTE School Psychologist Specialty Area Test Validation Committee at their November 1988 meeting. Finally, please review the lists of additional content categories and knowledge areas that were suggested by NASP survey respondents, and that are provided in your work folders. In deciding what proportion of the new forms of the test that should be devoted to each content category, you should judge whether any of these suggested additions constitute new categories that should be covered by the test, or are subject areas that may be subsumed under existing categories.

Please estimate the percentage of test questions on the new forms of the NTE School Psychologist Specialty Area Test that should be devoted to each of the following content categories (you are free to use any other sources of information in making your judgments that you deem important):

Assessment _____%
Intervention _____%
Evaluation _____%
Professional Practice _____%
Psychological Foundations _____%
Educational Foundations _____%

Any Additional Content Categories:

1. _____
_____ ____%

2. _____
_____ ____%

B. _____
_____ ____%

II.

In consideration of the discussion, and of the information you reviewed in making your ratings of the percentage of the new forms of the NTE School Psychologist Specialty Area Test that should be devoted to each content category, please make a final list of content categories, including your best estimate of the percentage of test questions that should be devoted to each category. Remember, this test is designed to assess the knowledge of a minimally qualified entry-level school psychologist.

	Description
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____
Content Category: _____%	_____

Content Category: _____

Knowledge Areas

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

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_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

_____ ____%

Appendix B

New Job Dimensions Proposed by
Survey Respondents
(# Respondents, if More than One, in Parentheses)

Job Dimension: Proposed New Job Dimensions

1. Individual counseling. (3)

2. A -14—Question the exclusion of handicapped children.

3. Adherence to state and federal regulations reassessment and SPED eligibilities.

4. If "school staff" excludes administrators then, train and educate administrators as to the clinical expertise required for positive results if individuals and groups and the manner in which issues must be approached.

5. Pre-referral intervention phase should be incorporated into one of phases.

6. Counseling-Group. (4)

7. Include "family systems" under 0 foundations.

8. Negotiations and persuasion.

9. Early identification of special needs.

10. Importance of confidentiality.

11. School psych sources are not limited to special ed population; can be critical component to ed resources career ed, vocational counseling.

12. Computers, microfilming, recordkeeping.

13. Communication skills.

14. Team approach for school psychologists.

15. Recognition of facts re: drugs and ramifications for drug use.

16. Scores not reported without interpretation.

17. Neuropsychology

18. Public relations. (2)

19. No reference to a child study/teacher assistance team model.

20. No. #1 might go under, A, B, or C.

21. Educational Function-Administrative status needs to be granted to school and due to the various tasks performed. On too many occasions we are supervised by individuals who have less extensive training and questionable ethics.

22. Committee on Special Education Tasks

23. Tasks in Appendix A should be weighted and prioritized.

24. Child advocacy referring to: a separated task performed by psychologists who are <u>not</u> working as school employees but rather as consultants to parents and children.

25. Seek a section on "Referral and Liaison."

26. Add a section on "Accountability."

27. Maintain a systematic feedback system, accurate inventory of professional materials.

28. Counseling theory.

Job Dimensions

Job Dimension: Consultation

1. Sensitivity to ethnic, economic, and cultural influences.

2. Referral to appropriate outside service or agency. 1

3. Adherence to state and federal regulations related to provisions of services to children.

4. Consults with teachers, administrations: and other school personnel to determine areas to be addressed by classroom guidance activities.

5. Consults with teachers to insure follow-up:

6. Peer consultation.

7. Knowledge of outside resources in community.

8. Consults to design curriculum at kindergarten and pre-k level.

9. #'s 47, 48, 49—consolidated into "...consulting w/... and providing info about "... "identifying needs and developing interventions for" ... "together with students, parents, staff, agencies, community, groups, and other members of multidisciplinary teams"... to eventually—assist in determination of policies and procedures affecting children and youth."

10. Variety of skills based on a range of theoretical perspective.

11. #11 & #12—through 2 years ago even at state level, our state school 0 people hesitated to answer this over—of adjusting academic programs. Leadership should beat <u>national</u> level.

12. Pre-referral consultation.

13. (6a) consults with agencies to coordinate services.

14. Provides info. to multidiscipline teams to help them put parents at ease.

Appendix B

Job Activities, within Job Dimensions
Added by Survey Respondents
(# respondents in parentheses)

Job Dimension Assessment:

1. Not just adolescents and children: (1)
2. Analyzing information (in #5) relevant to referral or hypothesis
3. Peer review/supervision.
4. Special ed placement recommendations: (1)
5. Selects, administers and interprets (11) developmental assessment of preschool children. Supplements results.
6. Computer competencies.
7. Understands the limitation of test data. (1)
8. Develop a plan for re-evaluation of exceptional students to ensure appropriate diagnosis and placement
9. Flexibility—extremely important.
10. General knowledge of child development. (1)
11. Curriculum based measurement.
12. A-1 — selection of techniques based on referral question, not referral information.
13. Utilized formal and informal techniques to determine the effectiveness for individual students of a variety of teaching and behavior management strategies.
14. Insert valid "appropriate and valid information about the child."
15. Incorporation of other professional data (speech, psychiatrists, medical info). (11)

Job Dimension Assessment: (cont.)

16. Develop skills to offer DSM-III-R diagnosis, as treatment follows accurate info.

17. A-18 — Defends use, analysis, communication of results and reporting of assessment techniques in legal or adversary situations.

18. Conducts and interprets play of young children.

19. (7A) Communicates (eval) results to students: 1.

20. When appropriate, discuss trends of difficulty and/or problem areas found in record/review gathering at background information.

21. 1-A Develops a standardized procedure to account for all dispensation of all referral classes.

22. 1-B ensures that the testing setting is appropriate for the purpose.

23. Need Assessment technology.

Job Dimension Continuing Education:

1. Is aware of status of own mental health with regard to balance of workload and wellness.

2. Is able to create a support system to maintain wellness and enhance growth.

3. Obtain appropriate supervision to expand skills for assessment/ intervention with student issues where the psychologist does not possess familiarity or expertise.

4. Evaluation of new and revised tests.

5. Reads current publications and attends workshops (not only in the field). (1)

6. F-1 might include local, state, and national organization.

Job Dimensions of Intervention:

1. Therapeutic interventions with stressed teachers and administrators. Address the relationship.

2. Is aware of political dynamics of school.

3. Assist teachers, parents or students in development of plans to identify and modify target behaviors.

4. Psychologist should be able to enter classroom and demonstrate behavioral modification techniques as a direct intervention.

5. Hold meetings for family including :11 children and school personnel

6. Crisis interventions (11)

7. Assists handicapped or disabled youth to make a smooth transition from school or work.

8. Behavioral management assistance.

9. Cognitive interventions.

10. Parenting classes.

11. Direct intervention 1111 (act as a liaison) (including awareness in K-8 level).

12. 5-A discuss trends of difficulty and/or problem areas found in record gathering.

Job Dimensions Inservice/Training/Staff Development

1. Work to insure all students receive meaningful sex and drug education.
2. School Psychologist should have at least 3 years classroom experience.
3. Report writing. (1)
4. School administration. (1)
5. # 10 — provides or coordinates training for members of multidisciplinary team to identify, analyze and assess the behavioral and/or social/emotional needs of individual students.

Stage 2

Appendix C

Knowledge Areas Suggested to be Added to the Content Specifications of the Test by Survey Respondents

Content Category: Not Specified

1. Interpersonal relations.
2. Counseling: Theories and practice: individual group, family.
3. Reporting writing.
4. Special Ed. regulations (legal).
5. Coordination with multidisciplinary team, group dynamics:
6. Verbal communication (oral): written
7. Other (cultural, environmental, racial, ethnic, speech, language) special ed. factors.
8. Case study writing using standard English.
9. Organization and time management.
10. Supervision.
11. Grieving development, parents with children with a disability.
12. Systems theory.
13. Psychopathology (DSMIII) (including adult and family effects, e.g., alcohol)
14. Classroom organization, other organization:
15. Low-incidence "handicaps."
16. Politics-administrative appointments, school systems:
17. Child advocacy.
18. Change techniques.
19. Program development.

20. Guidelines of special ed. qualifications.
Content Category: Not Specified (cont.)

21. Commonly-prescribed medications for childhood disorders.

22. School/community resources (2)

23. Projective testing.

24. Administration (logistics of forms, etc.).

25. Cultural (3)

26. Flexible/creative evaluation with sensory/motor handicaps.

27. Psychometrics/test selection.

28. Theoretical perspectives.

29. Special ed. laws, regulations, and school policies.

30. Rapport with children/others (2)

31. Individual, group, family therapy/dynamics

32. Child development (3)

33. Underachievers as exceptional learners.

34. Confidentially—when to remain silent.

35. Tests—which ones.

36. Seriously emotionally disturbed as behavioral disorders.

37. Consultation skills

38. Study skills, learning styles, cognitive style.

39. Family disfunction/intervention (3); assessment

40. Politics and ability to "ethnically function" (sic).

41. Federal and state rules and regulations governing EEN programming.

Content Category: Not Specified (cont.)

42. Human relations training
43. Educational finance and law (2) special ed.
44. Legal issues
45. Record control
46. How to run a meeting (2)
47. Biopsychology, Neuropsychology (3)
48. Pharmaceutical intervention (2)
49. Reading instruction and development (2)
50. Exceptional learners
51. Related services
52. Occupational therapy
53. Physical therapy
54. Speech
55. Adaptive P-E
56. Classroom practicum
57. School curriculum
58. Statistics
59. Research design
60. Time management
61. Due process
62. Should see therapist for 9 months themselves
63. Charting data
64. Should be supervised for a time
65. Crisis intervention
66. Test interpretation

Content Category: Not Specified (cont.)

67. Diagnosis

68. Cognitive behavior

69. Teaching styles

70. Conflict management

71. Self presentation

72. Elements of professional conduct

73. Sociocultural/behavioral/projective

74. Neurology

75. More emphasis on personality of projectives

76. Staffing/teaming

77. Cultural norms (treatment are a differences)

78. Neuropsychology

79. Psychotropic medications

80. Curricular knowledge—especially reading, math, writers language.

81. Important to know political composition of the school.

82. Problem solving procedures

83. Administration skills

84. Techniques related to teacher assistance teams.

85. Resources in community (referral out?).

Content Category: Assessment

1. Interviewing/consultation
2. Administration
3. Knowledge regarding testing of low-incidence
4. Testing preschool children (2) (including infants).
5. Ability to communicate results to school personnel.
6. Consultation
7. Child, teacher, parent interview.
8. Nondiscriminatory testing.
9. Interpretation
10. Projective tests (2)
11. Limitations of tests
12. Communication skills
13. "Projected" measures
14. Play assessment
15. Evaluation of preschool children
16. Parent and teacher behavior rating forms
17. Community expectations (2)
18. Family expectations
19. Family history
20. Rating scales
21. Sociometric techniques
22. Dynamics
23. Differentiate between observation and assessment of learning environment
24. Conducting and organizing "team/IEP" meetings.
25. Family assessment

Content Category: Intervention

1. Low-income specialties
2. Individual counseling
3. Group counseling and guidance
4. Intervention assistance teams
5. Theory and implementation of models of counseling/ therapy.
6. Ability to empower families and/or teachers to deal with referral issues.
7. Services available in area
8. Classroom intervention and building intervention teams.
9. Post _____ (post return to _____ ed.)
10. Communication skills
11. Consultation
12. Substance abuse
13. Family dynamics
14. Group dynamics
15. Substance abuse
16. "Referral out"—what does this mean.
17. Crisis intervention
18. Intervention E should be split—these are 2 different activities.

Content Category: Professional Practice

1. Increase internship and tighten supervision

Content Category: Psychological Foundations

1. Family Systems Theory
2. Psychopharmacology overview
3. Neurological disorders overview
4. Children under stress (abuse, divorce)
5. Perspectus on education
6. Social psychology influences in classrooms
7. Motivation
8. Cognitive psych
9. Developmental psych
10. Personality theory
11. Ethiology and treatment of syndromes and issues.
12. Ethnic differences
13. Educational personality theory

Content Category: Evaluation

1. Follow-up services
2. Research design
3. "Program evaluation" needs to be classified
4. Language development

Content Category: Educational Foundations

1. Administrative coursework, "know thy enemy"
2. Presentation and consultation with groups/individuals
3. P.1., 94-142, etc.
4. Exceptionality
5. Methods of reading
6. Study skills

STAGE 3

APPENDICES

APPENDIX A

LETTER SENT TO ITEM WRITERS

EDUCATIONAL TESTING SERVICE PRINCETON, N.J. 08541

609-921-9000
CABLE-EDUCTESTSVC

April 21, 1989

I'm pleased to be contacting you again so soon. We have received your letter indicating your willingness to write items for ETS. This letter will serve as confirmation that you have agreed to write up to ten questions for the NTE School Psychologist Specialty Area Test. The enclosures that accompany this letter describe these item types, outline some guidelines about how to structure each of these item types, and provide the job context in which the knowledge sampled by these items is typically used. Also enclosed is a list of Professional Skills of school psychologists that are employed in each job domain. These may be of some assistance to you in the focusing on the job context of each item.

I have also enclosed 20 item forms for you to submit your double spaced items on. Please note carefully, that the back of this form is to be used for your rationale for the keyed response. Please provide whatever text citations you can that will enable reviewers to verify the key. I hope these materials will provide you with sufficient information about the items we would like you to develop. We would like to receive your items by May 31; please let me know if this date is not suitable for you.

Once you submit your items, they will be reviewed by an ETS staff member who will evaluate their acceptability. If the ETS reviewers find that an item can be made acceptable with revisions with regard to style or content, the item will become part of the test's item pool. Note, too, that some suggestions are provided for item writing. You will be paid a base rate of $10 for writing each item.

I am enclosing two copies of a contract letter for new item writers. Please sign both copies of the letter, retain one, and return the other copy in the enclosed prepaid envelope. You may send the items, typed double spaced and one to a page, directly to me and I will have someone review them for you. Be sure to indicate on the back of each item the answer that is the correct response.

I am enclosing two specification assignment sheets for you. We have outlined two specifications closest to your background. Please focus your items on these two categories and the constituent knowledge areas, and write the item in the context in which the knowledge is used by school psychologists (these contexts are the result of a survey of school psychologists). If you would like to be assigned to different specifications, please let me know.

If you have any questions about these materials, please do not hesitate to contact me at 609-734-1705. I look forward to receiving your response.

Sincerely,

Gerald E. DeMauro

Gerald E. DeMauro
Senior Examiner
School and Higher
Education Programs

GED:lw

Enclosures: 2 Contract letters
20 Item Forms
Professional Skills of
School Psychologist
Specification Assignment sheets
Suggestions for Preparing Multiple
Choice Items

Appendix B

ITEM TRANSMITTAL FORM

Content Category:
(check one)

_____ Assessment
_____ Intervention
_____ Evaluation
_____ Prof. Practice

_____ Psych. Found
_____ Ed. Found

Submitted by: _____ Date: _____

Job Domain Context: _____

Constituent Knowledge Area: _____

(Type item here)

Reviewers' Comments:

Est. Delta: bis:

APPENDIX C

CONTENT SPECIFICATION ASSIGNMENT SHEET

ERRATUM (RR-90-26)

Content Specification Assignment

Content Category = Assessment
Percent of Test Questions = 25

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
Interviewing	Consultation	Assessment	4
Observation	Assessment	Consultation	6
File Review	Assessment	Intervention	2
Norm-Referenced	Assessment	Research	7
Criterion-Referenced	Assessment	Research	3
Curriculum-Based	Assessment	Research	3

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

Content Specifications Assignment

Content Category = Intervention
Percent of Test Questions = 25

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
Consultation	Consultation	Assessment	7
Counseling	Intervention	Consultation	5
Behavior Management	Intervention	Consultation	5
Academic	Intervention	Consultation	4
Prevention	Consultation	Intervention	4

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

Content Specifications Assignment

Content Category = Evaluation and Research
Percent of Test Questions = 10

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
Design	Research	Assessment	4
Program Evaluation	Research	Consultation	2
Technical Issues	Research	Assessment	4

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

Content Specification Assignment

Content Category = Professional Practice
Percent of Test Questions = 20

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
History and Foundations	Prof. Standards	Assessment	2
Ethics	Prof. Standards	Intervention	8
Professional Standards	Prof. Standards	Assessment	6
Legal Foundations	Prof. Standards	-	4

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

Content Specification Assignment

Content Category = Psychological Foundations
Percent of Test Questions = 10

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
Biological Bases	Intervention	Consultation	1
Cultural Diversity	Assessment	Consultation	2
Child and Adolescent Development	Consultation	Assessment	2
Human Exceptionalities	Assessment	Consultation	2
Human Learning	Consultation	Intervention	2
Social Bases	Assessment	Consultation	1

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

Content Specification Assignment

Content Category - Educational Foundations
Percent of Test Questions - 10

Constituent Knowledge Areas	Item Context: Important Job Dimension[1] Most	Second Most	Percentage of Test Questions
Exceptional Learners	Assessment	Consultation	3
Instructional Remedial Techniques	Consultation	Assessment	4
School Organization and Operations	Consultation	Inservice	3

[1] See enclosed list of Professional Skills of school psychologists for description of activities in these dimensions.

ERRATUM (RR-90-26)

The Three Stage Development of the NTE School Psychologist Specialty Area Test from A Job Analysis Perspective

Gerald E. DeMauro

Table 4

Two Job Dimensions For Which Each Knowledge Area was Rated as Most Important by the Committee of Examiners (January 1989).

Content Category	Knowledge Area	Important Job Dimension: Most	Important Job Dimension: Second Most
Assessment	Interviewing	Consultation	Assessment
	Observation	Assessment	Consultation
	File Review	Assessment	Intervention
	Norm-Referenced	Assessment	Research
	Criterion-Ref.	Assessment	Research
	Curriculum-Based	Assessment	Research
Prevention and Intervention	Consultation	Consultation	Assessment
	Counseling	Intervention	Consultation
	Behavior Mgmt.	Intervention	Consultation
	Academic	Intervention	Consultation
	Prevention	Consultation	Intervention
Evaluation and Research	Design, etc.	Research	Assessment
	Prog. Evaluation	Research	Consultation
	Technical Issues	Research	Assessment
Professional Practice	History and Found.	Professional Standards	Assessment
	Ethics	Professional Standards	Intervention
	Prof. Standards	Professional Standards	Assessment
	Legal Found.	Professional Standards	-
Psychological Found.	Biological Bases	Intervention	Consultation
	Cultural Diversity	Assessment	Consultation
	Child and Ad. Dev.	Consultation	Assessment
	Human Except.	Assessment	Consultation
	Human Learn.	Consultation	Intervention
	Social Bases	Assessment	Consultation
Educational Foundations	Exceptional Learn.	Assessment	Consultation
	Instructional/Mem.	Consultation	Assessment
	School Org. and Op.	Consultation	Inservice

BEST COPY AVAILABLE